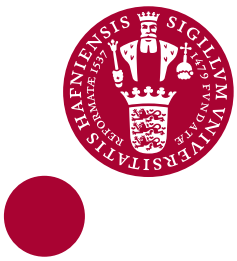

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Effects of temporary confinement of sows for 4 days after farrowing on sow behaviour and saliva cortisol

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This study aimed at investigating if confinement for 4 days after farrowing influenced sow behaviour and increased saliva cortisol levels.

MATERIALS AND METHODS

The study was conducted in a Danish piggery with SWAP (Sow Welfare And Piglet protection) farrowing pens. Sows were randomly allocated to one of three treatments: Loose-loose (LL: loose from placement in the farrowing unit to weaning; n=48), loose-confined (LC: loose from entry to end of farrowing and confined to day 4 post farrowing; n=50), and confined-confined (CC: confined from day 114 of gestation to day 4 post farrowing; n=45). All sows were loose housed from day 4 to weaning. Behavioural registrations were obtained from video recordings and saliva samples were collected daily.

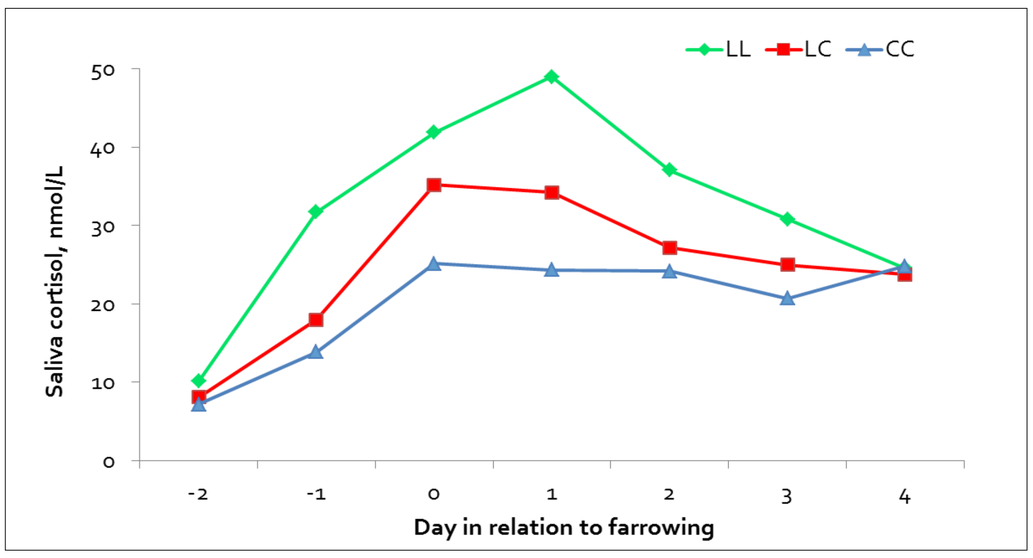

Figure 1. Saliva cortisol from day 114 of gestation (day -2) to day 4 after farrowing for sows in LL, LC and CL.

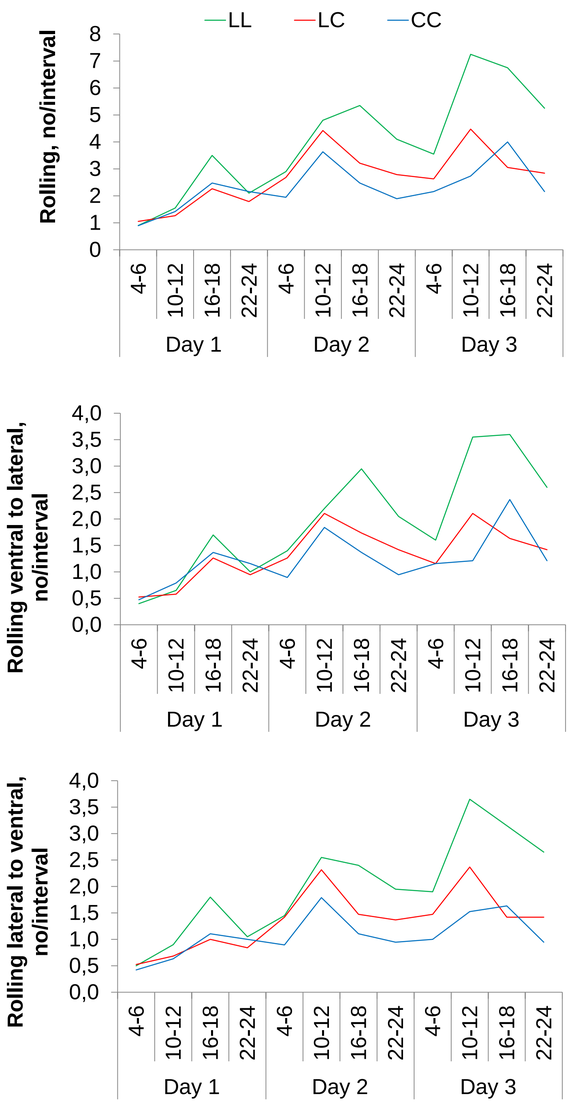

Figure 2. Frequencies of rolling from day 1 to day 3 after farrowing for sows in LL, LC and CL.

RESULTS

- Sow behaviour was characterised by few postural changes and prolonged lateral lying in all treatments.
- Time spent lying lateral was similar across treatments (P=0.66).
- Postural changes increased during the day in all treatments but more so in LL than LC and CC (P=0.02).
- Sows in LL had higher frequencies of getting up and lying down (P<0.05).
- Rolling frequency increased day from day 1 to day 3 post farrowing in all treatments, but LL had a greater increase than LC and CC (P<0.001).
- Sows in LL had more nursings than LC and CC on day 1 (P<0.001) and more nursings than CC day 2 (P=0.04) and day 3 (P=0.01).
- Sows in LL terminated more nursings than LC and CC on day 3 (P≤0.001).
- Saliva cortisol concentration was higher in LL than in LC day -1, 1 and 2 (P<0.05) and higher than CC from day -1 to day 3 (P<0.01).

CONCLUSION

In conclusion the results suggested that confinement for 4 days after farrowing had little influence on sow behaviour. Cortisol concentrations did not reflect behavioural differences but cortisol response was decreased if sows were confined before farrowing.

ACKNOWLEDGEMENT
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